

PRINCE Leadership MONTHLY

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Concrete to Abstract

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The middle school years are a time of complex physiological and cognitive changes for our students. As they attempt to navigate the tough terrain of puberty, one challenge middle school students face is transitioning from a concrete to abstract learner while dealing with newly emerging emotions and figuring out the complex relationships with their peers. Research shows students in middle grades experience brain growth in the pre-frontal cortex region of the brain which helps them make the transition from a concrete learner to an abstract learner (McDonald, 2010). Concrete learners are typically able to sort and order objects, combine objects, and transform objects and actions. They need visual and physical representations of the information being presented to help them process the new concepts more effectively. However, abstract learners can think more critically and engage in problem solving. They are more likely to form new ideas, compare and debate, and to think about the possibilities associated with a given idea (Stanford Children's Health). As educators, our goal is to help our students develop these skills during the middle grade years. By developing lessons that gradually introduce students to the higher order thinking skills, teachers can guide students and provide the scaffolding needed to achieve abstract thinking. Because this brain development occurs between the ages of 12-18, it is important

to note that students will develop these skills at different times. While most sixth-grade students still need lessons geared to more concrete learning, eighth graders need more lessons focused on concrete fading which helps transition them towards abstract thinking. By tailoring lessons that are developmentally appropriate and challenging to our students, we can better prepare them for the difficulties of high school rigor.

While we as educators have a large role in preparing middle school students for more complex thinking, there are things parents can do at home to help encourage this transition as well. Parents should engage students in sharing their ideas about a variety of topics, issues and current events. Parents can also help by encouraging students to think independently and develop their own ideas. Perhaps most importantly, parents can help their child re-evaluate poorly made decisions (Stanford Children's Health).

By partnering with parents, the middle school staff can help students achieve academic success and be better prepared for the academic challenges in high school.

References:

McDonald, Emma (2010). A Quick Look Into the Middle School Brain. Retrieved from <https://www.naesp.org/sites/default/files/resources/2/Principal/2010/J-Fp46.pdf>.

Cognitive Development in the Teen Years. Retrieved from <https://www.stanfordchildrens.org/en/topic/default?id=cognitive-development-90-P01594>.

